

Michigan DUI Courts Outcome Evaluation: Ottawa County

Final Report

Michigan Supreme Court, State Court Administrative Office

NPC Research

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Informing Policy, Improving Programs

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TABLE OF CONTENTS

Introduction and Background	01
Evaluation Design	02
Methodology	03
Results	07
Summary	20
References	21

LIST OF TABLES

Table 1: DUI Court Evaluation Data Sources	04
Table O.2: Participant and Comparison Group Demographics and Court-Related Data	09
Table O.3: Demographic and System-Related Variables That Predict Time to Re-Arrest	13
Table O.4: Characteristics of Graduated Compared to Terminated Participants of the Bay County DUI Court Program	17
Table O.5: Resource Expenditure Differences Between DUI Court and Comparison Group (Traditional Probation)	18
Table O.6: Resource Expenditure Differences Between DUI Court and the Comparison Group (Traditional Probation)	19

LIST OF FIGURES

Figure O.1: Average Number of Re-Arrests for DUI Court and the Comparison Group	10
Figure O.2: Percent of Participants Who were Rearrested	11
Figure O.3: Probability of Remaining Un-Arrested Over Time (Survival Function)	12
Figure O.4: Percent of Positive Drug Tests Over One Year for DUI Court Participants	14
Figure O.5: Percent of Positive Alcohol Tests Over One Year for DUI Court Participants	15

INTRODUCTION AND METHODS

Background

In the past 15 years, one of the most dramatic developments in the movement to reduce substance abuse among the U.S. criminal justice population has been the implementation of drug courts across the country. The first drug court was established in Florida in 1989. There are now well over 1,500 drug courts operating in all 50 states, the District of Columbia, Puerto Rico and Guam. The purpose of drug courts is to guide offenders identified as drug-addicted into treatment that reduces drug dependence and improves the quality of life for offenders and their families. "The emergence of these new courts reflects the growing recognition on the part of judges, prosecutors, and defense counsel that the traditional criminal justice methods of incarceration, probation, or supervised parole have not stemmed the tide of drug use among criminals and drug-related crimes in America," (Hora, Schma, & Rosenthal, 1999, p. 9).

In the typical drug court program, participants are closely supervised by a judge who is supported by a team of agency representatives that operate outside of their traditional adversarial roles. Addiction treatment providers, prosecuting attorneys, public defenders, law enforcement officers, and parole and probation officers work together to provide needed services to drug court participants.

In the drug treatment court movement, Michigan has been a pioneering force. The Michigan Community Corrections Act was enacted in 1988 to investigate and develop alternatives to incarceration. Four years later, in June 1992, the first female drug treatment court in the nation was established in Kalamazoo, Michigan. Since then, Michigan has implemented 75 drug courts, including expanding into further specialized courts (also called "problem solving courts") for adults, juveniles, family dependency, and DUI offenders.

In general, research and evaluation of the drug court model suggests that offenders who participate in drug courts show lower re-arrest rates compared to offenders who do not. Drug courts have been shown to be effective in reducing recidivism (GAO, 2005; Gottfredsen, Najaka, and Kearly, 2003) and in reducing taxpayer costs due to positive outcomes for drug court participants (Carey & Finigan, 2004; Carey et al., 2005). Some drug courts have even been shown to cost less to operate than processing offenders through business-as-usual operations (Carey & Finigan, 2004; Carey et al., 2005).

In a critical review of 37 published and unpublished drug court evaluations conducted by the National Center on Addiction and Substance Abuse (2001), researchers noted that although drug courts have achieved considerable support, and the number of quality drug court evaluations continues to grow, most local drug court evaluations are conducted under several constraints (i.e., limited funding, short evaluation time frame, small sample sizes). As such, many drug court evaluations nationwide are primarily process evaluations that are unable to provide meaningful outcomes analyses. For example, of the 37 evaluations reviewed, only 6 provided measures of post-program recidivism with a comparison group, and only one of these evaluations was specifically on a DUI Court. Moreover, problems with data quality were cited as an issue that continues to affect drug court evaluations and the ability to draw meaningful scientific conclusions. Researchers argue that further evaluations of drug courts are needed to examine the effectiveness of the various aspects of the drug court model and to better understand the effectiveness of the model with varying populations (e.g., alcohol abusers versus illegal drug abusers).

Evaluation Design

In FY2004, 12 courts in Michigan identified as DUI courts. Of these, 10 were operational and 2 courts were in the early planning phase. SCAO assisted in funding 9 of these courts. At the time this study was proposed, comprehensive outcome evaluation with comparison groups and longitudinal analyses had not been conducted for Michigan DUI courts. Consequently, little was known about the relative effectiveness of these courts in reducing drunk driving or the characteristics that affect client outcomes. SCAO proposed to conduct an outcome evaluation of DUI courts. This included the development of an appropriate (quasi-experimental) research design, the selection of courts to be included in the study, the selection of appropriate comparison groups (DUI offenders who were eligible for DUI Court but who did not participate), and extensive data collection on program services and participant outcomes (including re-arrests and new DUI charges). Because good quality outcome (impact) evaluations should include analyses of post program outcomes, the evaluation was designed as a longitudinal study that included tracking and collecting data on DUI court participants for a minimum of one year following either program completion or termination from DUI Court. Defendants in the comparison group were followed for a comparable time period.

In 2007, after performing the tasks described above, SCAO contracted with NPC Research (a nationally recognized research and evaluation firm) to perform the data analysis and report writing for this project. This report contains the methods and the outcome evaluation results for Ottawa County DUI court. The first section of this report provides the background for this study and a general description of the methods used to perform the evaluation. The next three sections present the results for each of the three DUI courts. The final section, Section 5, provides a brief summary of the results from all three sites.

OUTCOME EVALUATION QUESTIONS

The outcome evaluation was designed to address the following study questions:

1. What is the impact of participation in a DUI court on recidivism (re-arrests) compared to traditional court processing?
2. Does participation in DUI court reduce levels of alcohol and other substance abuse?
3. How successful is the program in bringing program participants to completion and graduation within the expected time frame?
4. What participant characteristics predict successful outcomes (program completion, decreased recidivism)?
5. How does the use of resources differ between DUI treatment court versus traditional probation?

Methodology

SITE VISITS

SCAO staff performed regular site visits to each of the three DUI courts presented in this report. Site visits provided an opportunity to observe court sessions and other DUI court practices. These observations gave the evaluation team first-hand knowledge of the structure, procedures, and routines of the DUI courts.

PARTICIPANT AND COMPARISON GROUP SELECTION

It was necessary to select a cohort of individuals who had participated in DUI court and a cohort of individuals who had not for the comparison group. Below is a description of the methods involved with selecting the DUI court participants and comparison group offenders.

The DUI Court Participant Group

The DUI court group included all participants who had entered the program from the time the program was implemented. These participants include both those who graduated and those who terminated (left the program before completion). In the Ottawa County DUI court this includes participants enrolled from April 2004 to March 2007.

All participants are included in the description of the participant population and in other analyses as appropriate. For analyses involving outcomes (recidivism) over time, only those participants with sufficient time after program entry to incur re-arrests (or time at risk) are included in the analyses. For analyses involving graduation or termination, only participants that have left the program are included.

The Comparison Group

Ideally, a comparison group is made up of offenders who are similar to those who have participated in the program (e.g., similar demographics and criminal history). A group of this type was selected based on DUI court target population and on eligible charges at each site using a historical sample of offenders who were eligible for DUI court before the DUI court was implemented. The comparison group for the Ottawa County DUI Court was selected from the one year prior to program implementation. DUI second offenders from that time period were examined for DUI court eligibility. Out of 91 possible cases, 66 met DUI court eligibility criteria.

DATA COLLECTION

The majority of the data necessary for the outcome evaluation were gathered manually from paper files during monthly site visits by SCAO staff data collectors. These data were entered into a study database created in Microsoft Access.

Recidivism data, including re-arrests and jail time, were collected from two sources: Criminal History Records (CHR) Database (Michigan State Police), and Michigan Judicial Data Warehouse (JDW). The data was entered into the study database and also printed in hard copy and kept in binders for easy reference. The source of recidivism data for Clarkston was CHR while the source of recidivism data for Bay County and Ottawa County was the JDW.

NPC staff members have experience extracting data from Access databases and adapted procedures developed in previous projects for data collection, management, and analysis. Once all data were received on the study participants and comparison groups, the data were compiled and

cleaned and then moved into SPSS 15.0 for statistical analysis. NPC staff is trained in a variety of univariate and multivariate statistical analyses using SPSS. These quantitative data were used to answer the study questions outlined above. In addition, because the sample sizes were small for some analyses, the data for the outcome evaluation were also examined and reported qualitatively. Although some differences were not significant, where differences were noted, the size of the effect suggests that it is highly likely that a larger sample size would have yielded statistically significant results.

DATA SOURCES

The types of data collected and the sources for the data are listed in Table 1. The sources of data on recidivism are described in more detail below.

Table 1: DUI Court Evaluation Data Sources

Data Type	Source
Demographic Characteristics	Program files
Date Of Program Admission And Discharge	Program files
Treatment Services Received	Program files
DUI Court Sessions	Program files
Breathalyzers And Other Drug Tests	Program files
Criminal Justice History	Pre-Sentence reports
Recidivism (Arrests, Jail Time)	CHR or JDW
Jail Time Served	CHR or JDW, Program files

Michigan Judicial Data Warehouse (JDW)

This database was used to collect recidivism data for Ottawa County. It contains data extracted from Circuit Courts, District Courts, Juvenile Case Data, Traffic Case Data, and the Probate Court System in the State of Michigan. It was used to determine if participants or comparison group members were charged for any criminal offense subsequent to their program or probation start date for the DUI case. Non-alcohol and non-drug related traffic offenses (i.e., driving while license suspended, driving without registration, etc.) were not recorded. The specific data includes the episode date, case filing date, and conviction date for each offense.

DATA ANALYSIS

Comparison of DUI Court and Comparison Groups

The participant group and the comparison group were compared on demographic and court-related variables. Each difference was tested for statistical significance by use of Chi-square tests for categorical variables (gender etc.) or one-way analysis of variance (ANOVA) for continuous variables.

Research Question #1: *What is the impact of participation in a DUI court on recidivism (re-arrests) compared to traditional court processing?*

1a. *Does participation in DUI court reduce recidivism (the number of re-arrests)?*

In order to determine if participation in DUI court, as well as other variables led to shorter time to re-arrest, covariates of sex, ethnicity, marital status, age, education, number of dependents, total previous misdemeanors and felonies, jail days pre-program/probation entry (jail days served on the DUI case before program or probation start), jail days post program/probation entry (jail days served on the DUI case due to sanctions or due to sentencing on that charge), number of sanctions, and time in treatment were used to predict time to rearrest after controlling for group. A stepwise approach to a Cox Regression was used to evaluate the contribution of each covariate to predicting time to re-arrest. The first block included group, the second block included the demographic variables (age, gender, ethnicity, years of education) and the third block included criminal justice-related variables (total previous misdemeanors and felonies, jail days pre-admission).

1b. *Does participation in DUI court lead to a lower recidivism rate (the number of participants who are re-arrested) compared to traditional court?*

The percentage of individuals arrested within 2 years after their DUI court program/probation start date was compared between the DUI participants and the comparison group. A chi-square was used to test for significant differences between the two groups.

1c. *Do traditional court members get re-arrested sooner than DUI court participants?*

A survival analysis examined the time to re-arrest after participants were admitted into DUI court or traditional probation (offenders who went through "business as usual" probation processing.). Time to re-arrest was calculated from the date of program/probation start to the date of the next arrest. Any arrests occurring prior to program/probation entry were not included. The survival times were calculated by subtracting the date rearrested from the date sentenced for the original arrest. The amount of available outcome data for each individual was calculated in days by subtracting the date of the first arrest from the date the data was collected for this study (June 27, 2007). The number of days of observation for each participant serves as the censor date for those not rearrested. In this sample, the traditional probation cases were all selected from the time period prior to the DUI court implementation, thus, the comparison group has a longer time of observation.

Research Question #2: *Does participation in drug court reduce levels of substance abuse?*

In order to determine if the DUI court reduced the use of alcohol, the total number of alcohol breath tests and the number of positive tests in three month periods was calculated. For each three month period, percent of positive alcohol tests were calculated. If the percentage decreases over time, this provides support for the effectiveness of the DUI court program in decreasing use.

The same analysis was performed with urinalysis (UA) test results for illegal drug use.

Research Question #3: How successful is the program in bringing program participants to completion and graduation within the expected time frame?

Bringing participants to completion in the intended time frame is measured by the program completion (graduation) rate and by the amount of time participants spend in the program. If the average amount of time spent in the program by DUI court graduates matches the intended length of the program, then the program is successful in graduating participants in the expected time frame.

Program graduation rate is the percentage of participants who graduated from the program out of a cohort of participants who have all left the program by either graduating or terminating unsuccessfully. This percentage is measured against the national average graduation rate for other court programs that follow the drug court model and against the averages for other states evaluated by NPC Research.

Research Question #4: What participant characteristics predict program success and decreased recidivism?

In order to determine which characteristics of the participants of DUI court participants predicted successful completion, a multivariate analysis of variance (MANOVA) was conducted. The characteristics were sex, race (white/non-white), age at DUI court entry, marital status (married/separated or unmarried, divorced, widowed), receipt of mental health services prior to court entry, currently taking psychotropic medications, highest educational level completed, family history of drug or alcohol involvement, total prior misdemeanors, total prior felonies, jail days pre-program/probation entry (jail days served on the DUI case before program or probation start), jail days post program/probation entry (jail days served on the DUI case due to sanctions or due to sentencing on that charge), drug involvement (in addition to alcohol), days in treatment during program, length of time in court and number of sanctions received. This analysis only included those who had exited from the DUI court program (either graduating or failing) and eliminated those who were still in the program. Significance is indicated by the univariate tests provided by the multivariate test and controls type I error to .05 for all the tests.

Data for all of the participants in the DUI Court program were examined to determine what characteristics predicted program completion. A similar multivariate analysis of variance (MANOVA) was conducted using recidivism (re-arrested or not) as the dependent variable.

Research Question #5: How does use of resources differ between DUI treatment court versus traditional probation?

The mean number of days between arrest and program/probation entry, the number of days in the DUI court program or traditional probation, the number of days in jail pre and post program/probation start and the number of days in treatment were calculated and tested with one-way ANOVA's in order to determine if differences in the amount of resources (or time involved with the criminal justice system) differed between the two groups.

OTTAWA COUNTY DUI COURT RESULTS

The results presented in this section include a brief description of the Ottawa County DUI Court's current operations. This is followed by a presentation of the outcome results in order of the evaluation questions described in Section 1.

Ottawa County DUI Court Program Summary

BACKGROUND AND TEAM

Ottawa County's DUI Drug Court, the Sobriety Court Program, was implemented in April 2004 and is located in the 58th district in west Michigan. The three main goals of the Sobriety Court Program include diverting offenders from jail, eliminating substance use, and reducing recidivism of offenders that live within the jurisdiction of the court. In order to meet these goals, the program has divided its capacity of 75 participants between two dockets, each with a different judge. Review hearings are held on Wednesdays biweekly with a staffing meeting held prior. There are two probation officers, the case managers, who serve 35-40 participants at any given time. They have the most contact with participants including many face-to-face meetings. Field supervision officers (FSO) perform home visits. They are able to administer Portable Breath Tests (PBT) and urine drug tests as well as observe the living arrangements. The rest of the team who also attend hearings and staffing meetings include the assistant prosecuting attorney, the Sobriety Court defense attorney, the coordinator and the treatment providers.

ELIGIBILITY AND ENROLLMENT

The target population of the Ottawa Sobriety Court Program is offenders with their second driving under the influence of drugs or alcohol (DUI) charge or criminal charges that involve substance abuse. Defendants must meet the following criteria in order to be eligible for the program. They must have a new charge in Ottawa County or a violation of probation for offenses that are drug or alcohol related or for which there is an underlying substance abuse issue. The defendant must have an alcohol and/or drug addiction or show an obvious pattern of substance abuse. Only residents of Ottawa County may participate in the program. Those defendants with a prior serious violent offense, serious mental illness, record of felony weapons violations, or charges pending in another jurisdiction would be excluded.

Potential participants may be made aware of the Sobriety Court Program by any number of agencies including but not limited to the police, defense counsel, or prosecutor's office. Once a candidate is identified, they undergo an initial screening performed by the Sobriety Court case manager. If the defendant qualifies and indicates a desire to enroll they will enter post-plea. Once enrolled, the Addiction Severity Index (ASI) tool is used to place the person in appropriate treatment.

DRUG COURT PROGRAM PHASES

The Ottawa Sobriety Court Program has four phases. Participants must take a minimum of 17.5 months to complete the program but can take no more than 24 months. The following briefly describes each phase and its requirements.

Phase I lasts a minimum of 15 weeks and requires participants to attend court sessions biweekly. Treatment is individualized and participants must attend individual and group therapy according-

ly. Participants must obtain an Alcoholics Anonymous/Narcotics Anonymous (AA/NA) sponsor within 60 days of program entry and attend 5-7 AA/NA meetings each week. Weekly drug testing and daily alcohol testing occur in conjunction with random home visits by police and/or probation officers. In Phase I, participants are required to seek and maintain employment or attend "Michigan Works!" for assistance. If employment is not obtained after 4 weeks, each participant must complete a minimum of 20 hours of community services per week until employed. Payments for fines, costs and treatment must be maintained and need to be up to date before phase advancement. Lastly, before changing phases, participants must have 90 continuous days of sobriety.

Phase II also has a required minimum of 15 weeks as well as biweekly court sessions. Participants must meet with their case manager at least twice per week. AA/NA meetings must be attended 4-7 times each week and participants must maintain a relationship with their sponsor. Drug and alcohol testing are random as are home visits by the police and/or probation officers. Participants have to maintain employment and keep their payment schedule current. Advancement to Phase III can occur only after having a minimum of 90 days continuous sobriety.

Phase III lasts at least 20 weeks. Court sessions and case manager meetings are reduced to once a month. AA/NA meetings must be attended at least three times a week. Participants may be required to attend family counseling, a life skills course, an English as a second language course, or begin a GED process. Drug and alcohol testing continue to occur randomly. Employment and payments must be maintained and a minimum of 90 days continuous sobriety must occur before the phase is complete.

Phase IV, also a minimum of 20 weeks, continues to require monthly court sessions and case manager meetings. Participants must attend at least three AA/NA meetings each week. Any previous trainings or counseling must be completed and "Give-and-Take" group sessions must be attended bimonthly. Testing for drugs and/or alcohol use is random and employment needs to be maintained. Participants are required to complete a narrative describing their lifestyle change during the program.

REWARDS AND SANCTIONS

During the Ottawa Sobriety Court Program, incentives can include positive recognition from the judge and the team including applause and praise. Participants may also have court fines reduced or their payment plan extended or made more flexible. When advancing to a new phase, participants receive certificates and gift cards along with the possibility of reduced requirements.

Sanctions, given for noncompliant behaviors, can include increased supervision with the field supervision officer, electronic monitoring, increased substance use testing, community service, jail alternative work service, loss of driving privileges, admonishment, delayed movement to new phase or return to old phase, extended time in the program, journals or essays, curfew, verbal and written apologies, or a jail sentence (48 hours to 30 days).

GRADUATION AND UNSUCCESSFUL TERMINATIONS

Upon completion of all Ottawa's Sobriety Court Program requirements, participants are released from their probation term. Probation terms are sentenced at 24 months but participants can be released early if they complete all the phases in less time. Those who are terminated from the program will receive a jail sentence of up to 365 days.

Ottawa County Outcome Evaluation Results

DEMOGRAPHICS

Table O.2 presents a set of demographic characteristics for offenders who were eligible for the Ottawa DUI court but were sentenced to traditional probation (the comparison group) compared with participants in the DUI court program in Ottawa County. There were no significant differences on any demographic variables except for number of dependants. The two groups were comparable on gender (80% male), minority status (59% white), age (31 years of age), education (57% had a high school diploma or higher) and marital status (22% were married). However, Ottawa DUI court participants were more likely to have fewer dependents. It is possible that the time the program requires makes it difficult for offenders with children to participate. The program may want to consider ways to make it possible for offenders with children to participate in the program, such as offering childcare (or funds for childcare) during treatment meetings and court sessions.

Table O.2: Participant and Comparison Group Demographics and Court-Related Data

Ottawa County	DUI Court N = 143	Comparison N = 66	Significant?*
Gender	79% Male 21% Female	83.3% Male 16.7% Female	no
Ethnicity	60.1% White	54.5% White	no
Marital Status	20.4% Married	24.2% Married	no
Education	11.7	12.1	no
Average Number of Dependents	.87	1.68	yes
Average Age at Drug Court Entry	30.5	32.2	no
Average Number of Previous Misdemeanors	4.09	4.08	no
Average Number of Previous Felonies	.15	.10	no

*Yes = ($p < .05$); No = ($p > .05$); Trend = ($p > .05$ and $p < .1$)

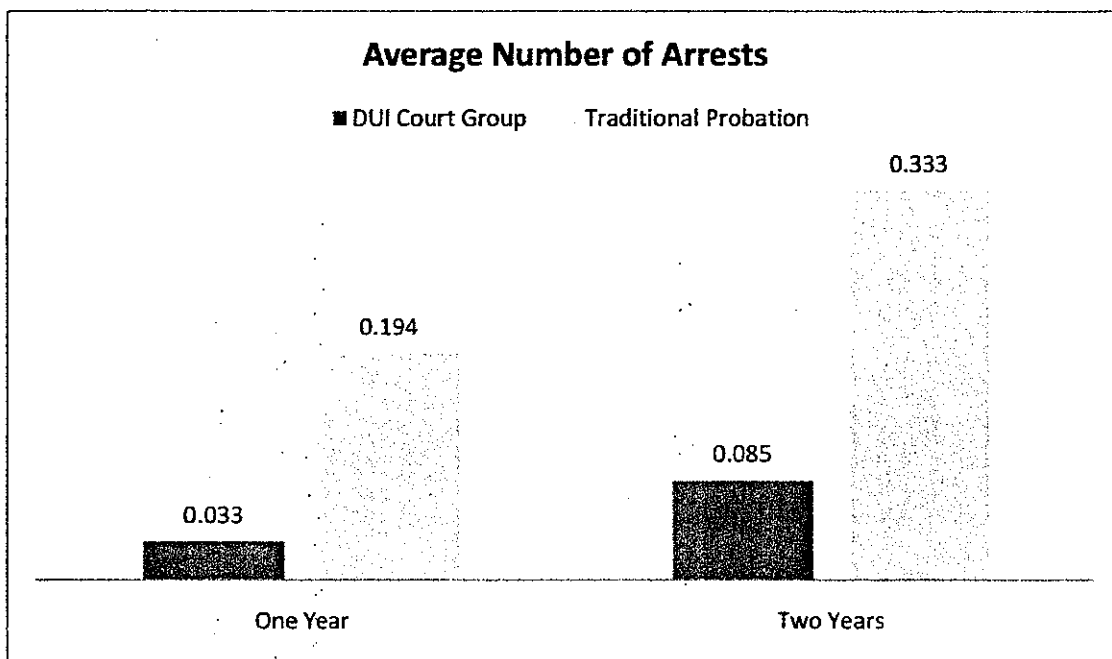
The following section presents the results of the analysis of data from the Ottawa County DUI Court based on five research questions. These questions concern the differing rates of program success and recidivism (re-arrests) experienced by the DUI court participants and the comparison group of participants who were eligible for the DUI court but did not participate. These results also allow the examination of the success of the Ottawa County DUI court in bringing participants to program completion in the intended length of time, and any participant characteristics or program services that predict successful outcomes.

RESEARCH QUESTION #1: WHAT IS THE IMPACT OF PARTICIPATION IN A DUI COURT ON RECIDIVISM (RE-ARRESTS) COMPARED TO TRADITIONAL COURT PROCESSING?

1a. Does participation in DUI Court reduce recidivism (the number of re-arrests)?

When the number of re-arrests that occurred within one year from the date of program/probation entry was calculated, the difference between the DUI court participants and the comparison group was significant ($F = 5.32$; $p = .023$) with the comparison group re-arrested significantly more often than DUI court participants. This trend continues in the second year after probation/program start (See Figure O.1).

Figure O.1. The Average Number of Arrests for Ottawa DUI Court and the Comparison Group



The comparison offenders on traditional probation were re-arrested nearly six times more often in the year after starting probation for the DUI charge than the DUI court participants and were re-arrested four times more often in the second year.

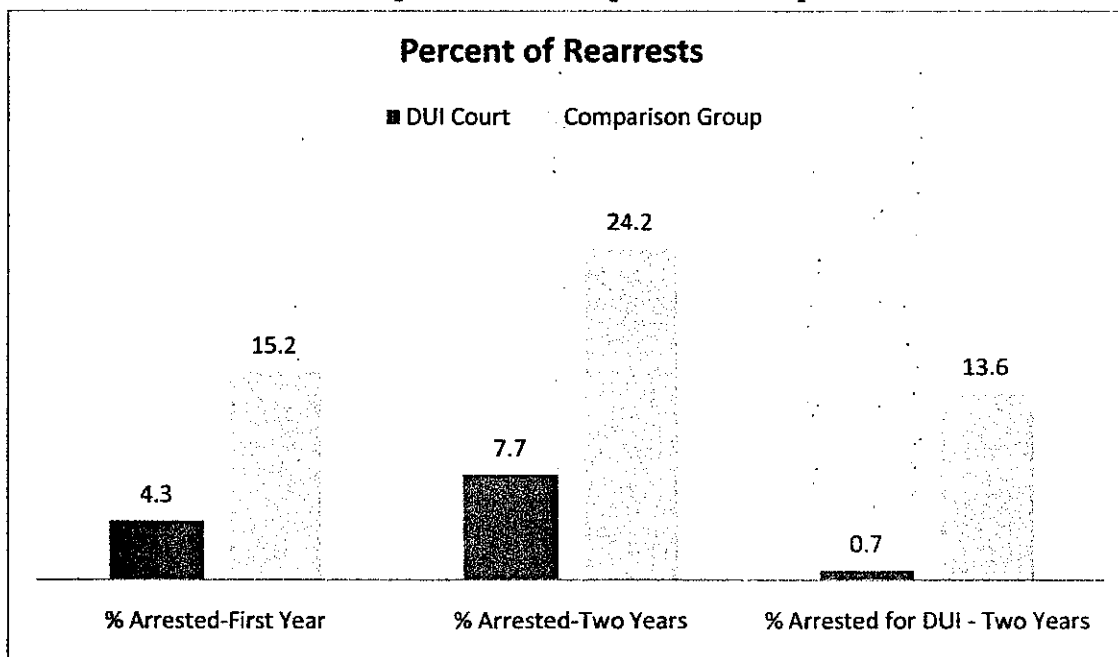
Predicting number of re-arrests: Other factors besides participation in the DUI court could explain why the DUI court participants get re-arrested less often such as differences in criminal history. In order to determine if participating in DUI court, and not these other factors, led to fewer re-arrests, an analysis was run controlling for sex, minority status, marital status, age, years of education, total previous felonies and total previous misdemeanors, total jail time prior to probation/program start, whether the client was using illegal drugs at time of arrest and the total jail days spent in custody during drug court stay. The results indicated that DUI court participation was significant as a stand-alone predictor and was still significant when all covariates were included (indicating that participation in DUI court and not these other factors resulted in the lower

number of re-arrests). Also significant were age¹ (older people were less likely to be rearrested), and the number of jail days the person spent prior to program/probation entry (the fewer number of days spent in jail pre-entry, the fewer number of times the participant was rearrested).

1b. Does participation in DUI court lead to a lower recidivism rate (the number of participants who are re-arrested) compared to traditional court?

Figure O.2 shows that significantly more comparison offenders were re-arrested than DUI court participants. Of the comparison cases, 15.2% of the offenders were re-arrested in the first year after program/probation entry and 24.2% were rearrested within 2 years. This is compared to the DUI court participants of whom only 4.2% were rearrested in the first year and 7.7% of the participants were rearrested within 2 years. These are both significant differences. Further, the percent of DUI court participants re-arrested with DUI offenses in 2 years was significantly less than the percentage of participants with new DUI offenses in the comparison group (0.7% vs. 13.6%).

Figure O.2: Percent of Individuals Rearrested - DUI Court Participants and Comparison Group



In a 2-year period, traditional probation offenders in the comparison group were more than 3 times more likely to be re-arrested for any charge and were nineteen (19) times more likely to be re-arrested for a DUI charge than Ottawa County DUI court participants.

1c. Does participation in the DUI court program lead to more time to the first re-arrest compared to traditional court?

A survival analysis of participants with 2 years or more of follow-up data were included. Results showed that the re-arrests occurred significantly earlier for the comparison group than for the DUI court group. That is, the comparison group members were re-arrested significantly sooner

¹ Trend Level

after program/probation entry for the DUI court eligible offense than the DUI court participants ($p = .012$). The percentage of those re-arrested was also significantly higher for the comparison group. At the endpoint, 7.7% of DUI cases and 24.4% of comparison cases had been re-arrested ($p < .001$).

Figure O.3: Probability of Remaining Un-Arrested Over Time - DUI Court and Comparison Group (Survival Function)

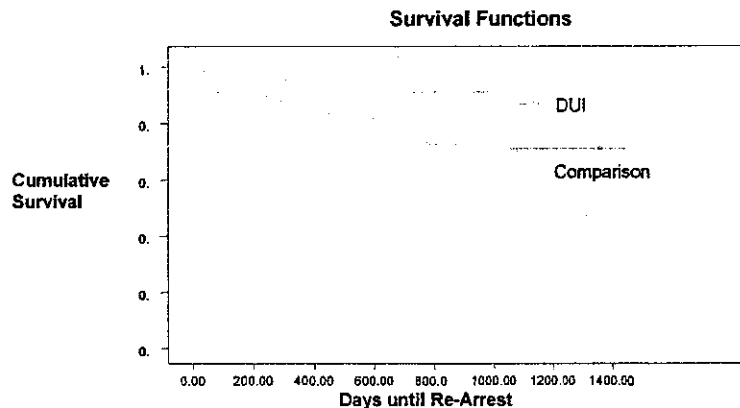


Figure O.3 shows when the individuals in each group were re-arrested and the proportion that remained un-arrested after program/probation entry over time (out to 1400 days or 3.8 years). The top line represents the DUI court group and the lower line represents the comparison group. The DUI court showed considerable effect and was re-arrested significantly later than the comparison group. The average number of days until DUI participants were re-arrested in one year was 135 days while the average for the comparison group was 74.5 days. The average time to the first re-arrest for DUI participants is twice as long as that for the comparison group. Participation in DUI court has a substantial effect in delaying any re-arrests.

Predicting Time to Re-Arrest: As described for the analysis on the number of re-arrests, other factors besides participation in the DUI court could explain why there was a longer time interval before DUI court participants were re-arrested. For example, differences in demographics between the two groups affect the time to first re-arrest (e.g., women tend to be arrested less frequently than men) or differences in criminal history may influence time to next arrest (e.g., those with a more extensive criminal history are more likely to be re-arrested). In order to determine if participating in DUI court, and not these other factors, led to shorter time to re-arrest, an analysis was run controlling for sex, ethnicity, marital status, age, education, total previous misdemeanors and felonies, jail days pre-admission, jail days post admission, days in jail as a sanction, number of sanctions, and days from arrest to program/probation entry were used to predict time to re-arrest after accounting for group membership (participant group or comparison group). Table O.3 shows the variables that predicted time to re-arrest.

Table O.3: Demographic and Court-Related Variables That Predict Time to Re-Arrest

Variable	Participant was arrested earlier if they...	Significant?*
Group	were in the comparison group (traditional probation)	Yes
Male	Were male	Trend
Education		No
Minority Status		No
Married		No
Age	Were younger	Yes
Number of Dependents	Had fewer dependents	Yes
Total Prior Felonies		No
Total Prior Misdemeanors		No
Total Jail Time Pre-Program/Probation Start		No
Days in Treatment	Had fewer days in treatment	Yes
Jail Days During Probation/DUI Court	Had more jail days	Yes
Drug Involvement		No
Days from Arrest to Treatment		No
Number of Sanctions	Had a higher number of sanctions	Yes

*Yes = ($p < .05$); No = ($p > .05$); Trend = ($p > .05$ and $p < .1$)

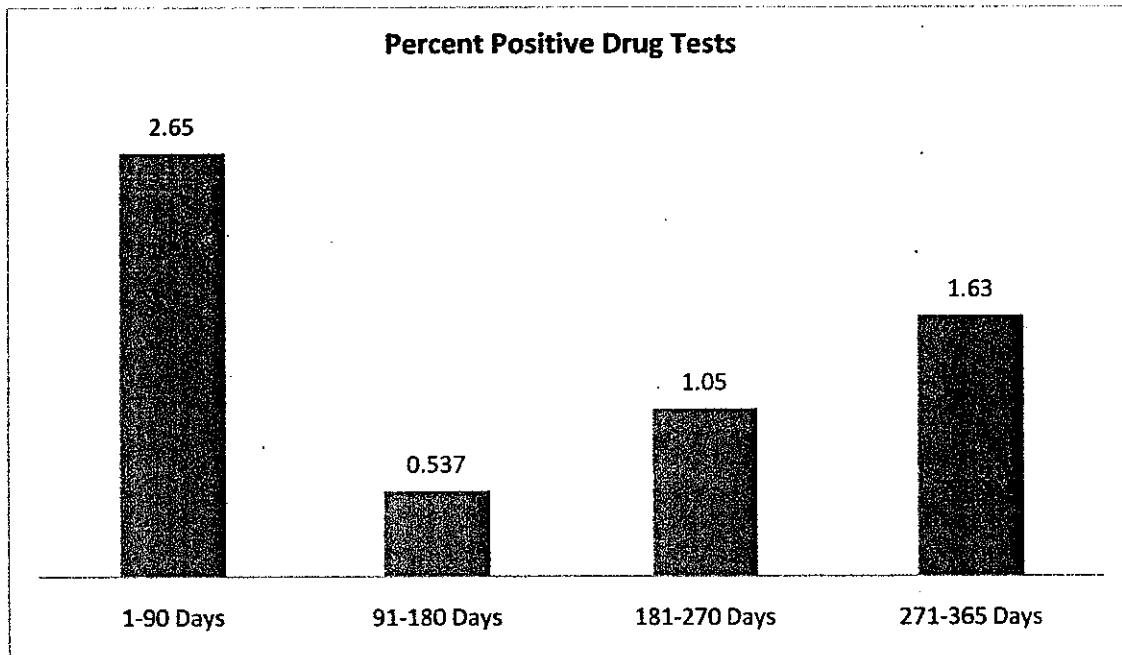
Group (DUI participants vs. the comparison group) was significant when including all covariates indicating that participating in DUI court was a significant predictor of a longer time to re-arrest. The comparison group was re-arrested earlier than the DUI court group in spite of any differences that might exist between the two groups. This analysis also showed that men were more likely to be rearrested earlier as were younger participants. Also, those with no or fewer dependents, fewer prior misdemeanors, who were younger, had more sanctions, more jail days during probation or in the program and fewer days in treatment were all more likely to be re-arrested sooner.

RESEARCH QUESTION #2: DOES PARTICIPATION IN DRUG COURT REDUCE LEVELS OF SUBSTANCE ABUSE?

Drug Use

The percent of positive drug tests was measured in 3-month intervals from the participant start date in the program. Figure O.4 shows that the percent positive tests for DUI Court participants had a large drop from the first to the second period and then increased slightly each period after that. Overall, there was a decrease from the first 3 months in the program to the end of the first year. However, none of these differences was significant ($F = 1.895$; $p = .130$). The lack of significance is mostly likely due to the extremely small number of positive tests, which in itself is a success for this program.

Figure O.4: Percent of Positive Drug Tests Over a One-Year Period for the DUI Court Participants

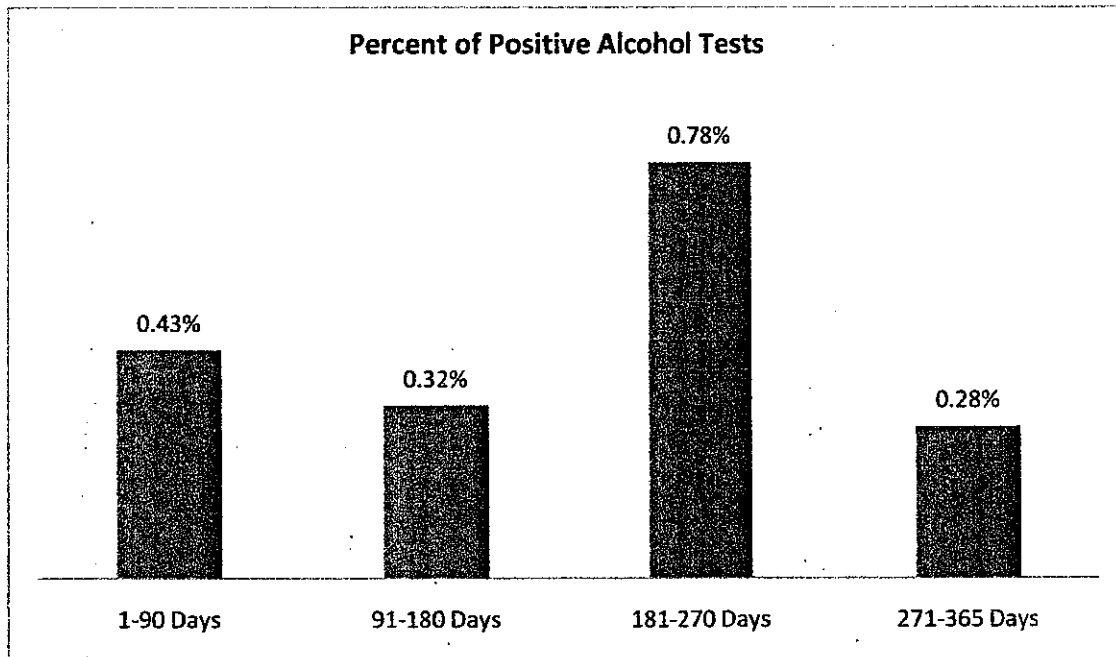


Alcohol Use

The percent of positive alcohol tests was also measured in 3-month intervals from the participant start date in the program. Figure O.5 shows the percent of positive alcohol tests over time in three month intervals, thus, period 1 = 0 to 90 days; 2 = 91 to 180 days; 3 = 181 to 270 days; and 271-365 days. Overall, the percentage of positive tests decreased over time, although there was an increase in the third period. The program may want to examine their practices and their participants at 6 to 9 months into the program to see if there are any stages of change that could explain this increase in relapse and any program practices they might adjust to compensate. However, the difference in the four periods was not significant ($F = .889$; $p = .447$) and the percent of positive tests was extremely small, so the increase in the third period may be an artifact of this small number. In addition, because of the very short time frame in which alcohol is present and detectable in a person's system, it may not be possible to consistently catch those who are using.

So, unlike illegal drug use which can be detected in the urine after a day or several days, the percent positive alcohol tests over time may not be the best measure of reduction in use. This data should be examined again in the future when there are more participants to determine if there are reasons why more participants may relapse in that time period or if testing practices differed during that time period. (Also, to ensure accurate interpretation, please note that the values reported are actual percentages and thus, .43 is 0.43% not 43%.)

Figure O.5: Percent of Positive Alcohol Breath Tests Over a One-Year Period for DUI Court Participants



RESEARCH QUESTION #3: HOW SUCCESSFUL IS THE PROGRAM IN BRINGING PROGRAM PARTICIPANTS TO COMPLETION AND GRADUATION WITHIN THE EXPECTED TIME FRAME?

Bringing participants to completion in the intended time frame is measured by the program completion (graduation) rate and by the amount of time participants spend in the program. If the average amount of time spent in the program by DUI court graduates matches the intended length of the program, then the program is successful in graduating participants in the expected time frame.

Program *graduation rate* is the percentage of participants who graduated from the program out of a cohort of participants who have all left the program by either graduating or terminating unsuccessfully. When there are still active participants, the program *retention rate* can be calculated. This is the number of graduated and active participant out of the total number enrolled. The graduation rate can be measured against the national average graduation rate for other court programs that follow the drug court model and against the averages for other states evaluated by NPC Research.

Of the 143 participants in the Ottawa DUI Court program, 56 successfully graduated, 17 failed and 70 remained in the program in good standing. This results in a retention rate of 88%.

Of those who had left the program, 49 out of 58 graduated, which provides a current graduation rate of 84%. (However, this number is not final until all participants that started in the same time frame have left the program. When the Ottawa DUI court has more full cohorts that have exited the program, this number should be updated). The current program graduation and retention rates are high compared to other programs using the drug court model in the U.S. which consistently have better completion and retention rates than other offender and non-offender based drug treatment programs (Cooper, 2004).² It is also high compared to drug court programs in others states studied by NPC Research (e.g., Carey et al., 2005; NPC Research, 2007). For example, a study of nine drug courts in California showed an average graduation rate in these programs of 56% (Carey et al., 2005).

To measure whether the program is graduating participants in its expected time frame, the average amount of time in the program was calculated for participants who had enrolled in the Ottawa County DUI Court between August 1, 2004, and July 31, 2005. The Ottawa County DUI Court is intended to be an 18-month program from entry to graduation. The average length of time participants spent in DUI Court was 466 days (15.5 months). Graduates spent an average of 521 days in the program or just over 17.3 months and ranged from 151 to 736 days in the program. Participants who were unsuccessfully discharged spent on average, less than one year in the program (307 days). The results for program graduates show that the Ottawa County DUI Court was on target with the 18-month intended time to program graduation.

RESEARCH QUESTION #4: WHAT PARTICIPANT CHARACTERISTICS PREDICT PROGRAM SUCCESS (GRADUATION) AND DECREASED RECIDIVISM?

Graduates and unsuccessfully discharged participants of the DUI program were compared on the basis of demographic characteristics and drug of choice to determine whether any significant patterns predicting program graduation or recidivism could be found. Of the 83 persons no longer enrolled in the DUI program, 27 (32.5%) were terminated, 57 (65.5%) had graduated.

Program Success

Participant characteristics were examined in relation to program completion status. The multivariate model was highly significant (Wilks' Lambda = .176; $F = 15.58$; $p < .000$). Table O.4 presents results of this analysis. The right-hand column of the table displays whether the analysis showed any statistically significant difference between those who graduated and those who did not. This column displays "yes" for significant results, "trend" for results that "approach significance" (p values between .05 and .10) and "no" for those p values above .10.

² There is currently no national study of DUI courts, therefore comparisons are made to national adult drug court programs that include other drug use besides alcohol. The higher completion rates may be due to the difference in type of drug.

Table O.4: Characteristics of Graduated Compared to Terminated Participants of the Ottawa DUI Court Program

	Graduated N=57	Terminated N=27	
Variable	Mean	Mean	Significant?*
Males	80%	82%	No
Age	33.5	26.7	Yes
Ethnic Minority	42%	46%	No
Married	24%	0%	Trend
Years of Education	12.5	10.7	Yes
Family History of Drug or Alcohol Involvement	11%	9%	No
Illegal Drug Involvement (in addition to alcohol)	16%	64%	Yes
Prior Number of Misdemeanors	4.31	4.64	No
Prior Number of Felonies	.24	0	No
Prior Mental Health Treatment	20%	45%	Trend
Use of Psychotropic Medications	20%	9%	No
Days in Jail on This Case Prior to Program Start	5.0	11.7	No
Days of Program Involvement	552.9	286.6	Yes
Positive Alcohol Tests	.27%	.52%	Yes
Number of Sanctions	3.31	7.36	Yes

*Yes = ($p < .05$); No = ($p > .05$); Trend = ($p > .05$ and $p < .1$)

The findings presented in Table O.4 show that participants who had more years of education, were married, older, stayed in the program longer and had fewer sanctions were more likely to graduate. Conversely, those who had a history of mental health problems prior to arrest, had more positive alcohol tests and who used illegal drugs in addition to alcohol at the time of their arrest were less likely to graduate. Also, although it was not significant with this sample size, those with fewer days in jail prior to starting the program were more likely to graduate; (those who graduated had less than half as many days in jail compared to those who terminated).

Recidivism

A second multivariate analysis of variance was conducted to determine which participant characteristics described above were related to recidivism (rearrested or not) after program entry. Table O.5, below, presents the results for this analysis. The multivariate effect of the overall analysis model was significant (Wilks' Lambda = .459, $F = 4.719$, $p < .000$). Results show that participants who are more educated and spent more time in the program were less likely to be rearrested. Those with a greater number of sanctions, who had more positive alcohol tests and who had illegal drug involvement (as well as alcohol), were more likely to be rearrested.

Table O.5: Participant Characteristics Related to Recidivism

	Un-arrested N=68	Re-arrested N=8	
Variable	Mean	Mean	Significant?*
Percent Males	79%	75%	No
Age	32.8	24.5	Yes
Percent Minority	41%	38%	No
Percent Married	21%	0%	No
Years of Education	12.2	10.5	Yes
Percent Family History of Drug or Alcohol Involvement	9%	25%	No
Percent with Illegal Drug Involvement	22%	50%	Trend
Prior Number of Misdemeanors	4.96	3.88	No
Prior Number of Felonies	.19	0	No
Percent Prior Mental Health Treatment	24%	25%	No
Percent Using Psychotropic Medications	16%	25%	No
Average Days in Jail Prior to Program/Probation Entry	6.6	9.8	No
Days of Program Involvement	499.0	393.4	Yes
Percent Positive Alcohol Tests	.34%	.73%	Yes
Number of Sanctions	3.47	14.75	Yes

*Yes = ($p < .05$); No = ($p > .05$); Trend = ($p > .05$ and $p < .1$)

RESEARCH QUESTION #5: HOW DOES THE USE OF RESOURCES DIFFER BETWEEN DUI TREATMENT COURT VERSUS TRADITIONAL PROBATION?

An examination of the treatment and criminal justice system (jail, probation, court) resources used in the DUI court program compared to traditional probation showed some interesting results. (See Table O.6).

Table O.6: Resource Expenditure Differences Between DUI Court and the Comparison Group (Traditional Probation)

Ottawa County	DUI Court N = 143	Comparison Group N = 66	Significance
Average Number of Days Between Arrest And Program/Probation Entry	43.3	96.7	Yes
Average Number of Days in Jail (Pre-Program/Probation Entry)	5.3	7.6	No
Average Number of Days in Jail (Post-Program/Probation Entry)	37.6	70.1	Yes
Average Number of Days in Jail For Case (Total)	42.9	77.7	Yes
Average Number of Days in Treatment	224	156	Yes
Number of Days in The DUI Program or on Probation	469.9	281.7	Yes

*Yes = ($p < .05$); No = ($p > .05$); Trend = ($p > .05$ and $p < .1$)

The results demonstrate that DUI court participants spent considerably more time in treatment than those on traditional probation (supporting the goals of the program of getting and keeping addicted offenders in treatment). Further, the average waiting period between arrest and program/probation entry was significantly reduced in the DUI court and the number of days spent in jail prior to program/probation entry, and the total time in jail was also reduced thus saving time and money. Time enrolled in the program was higher for DUI court participants compared to time spent on probation in the comparison group. And as demonstrated earlier, longer time spent in the program predicts success both in completing the program and in reducing recidivism.

Summary of Ottawa DUI Court Results

The results of the outcome analysis for the Ottawa County DUI court are positive. Ottawa County DUI court participants (regardless of whether they graduated from the program):

- Had three times fewer re-arrests two years from program/probation entry than the comparison group
- Were three times less likely to be re-arrested for any charge within two years
- Were nineteen times less likely to be re-arrested for a DUI charge within 2 years
- Had a significantly longer time to re-arrest than the traditional probation comparison group (74.5 days vs. 135 days)
- Reduced drug and alcohol use over time in the program

In addition, DUI court participants spent significantly less time in jail and significantly more time in treatment than the traditional probation comparison group members. Further, DUI court participants were sentenced substantially sooner than those who enter traditional probation. Overall, these results demonstrate that the Ottawa county DUI court program is effective in reducing recidivism and reducing drug and alcohol use while using fewer criminal justice system resources.

REFERENCES

- Carey, S.M., & Finigan, M.W. (2004). A Detailed Cost Analysis in a Mature Drug Court Setting: A Cost-Benefit Evaluation of the Multnomah County Drug Court. *Journal of Contemporary Criminal Justice*. 20(3) 292-338.
- Carey, S.M., Finigan, M.W., Waller, M.S., Lucas, L.M., & Crumpton, D. (2005). California Drug Courts: A Methodology for Determining Costs and Avoided Costs, Phase II: Testing the Methodology, Final Report. Submitted to the California Administrative Office of the Courts November 2004. Submitted to the Bureau of Justice Assistance in June 2005.
- Cooper, C. (2004). OJP Drug Court Clearing House and Technical Assistance Project: Summary of Drug Court Activity by State and County. American University.
<http://spa.american.edu/justice/resources/drgchart2k.pdf>
- Government Accounting Office (2005). "Adult Drug Courts: Evidence Indicates Recidivism Reductions and Mixed Results for Other Outcomes." Available at www.gao.gov/new.items/d05219.pdf February 2005 Report
- Gottfredson, D., Najaka, S., & Kearly, B. (2003). "Effectiveness of Drug Treatment Courts: Evidence from a Randomized Trial." *Criminology and Public Policy*, 2(2).
- Hora, P.F., W.G. Schma, & Rosenthal, J. (1999). "Therapeutic Jurisprudence and the Drug Treatment Court Movement: Revolutionizing the Criminal Justice System's Response to Drug Abuse and Crime in America." *Notre Dame Law Review* 74(2): 439-527.
- National Association of Drug Court Professional Drug Court Standards Committee (1997). "Defining Drug Courts: The Key Components." U.S. Department of Justice, Office of Justice Programs, Drug Court Programs Office.
- NPC Research; Carey, S.M., Wiest, K., Waller, M. S., Martin, S.J., & Finigan, M.W. (2007). Indiana Drug Courts: A Summary of Evaluation Findings in Five Adult Programs. Submitted to the Indiana Judicial Council, March 2007.
<http://www.npcresearch.com/Files/Indiana%20Drug%20Courts%20All%20Site%20Summary%20FINAL.pdf>